

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A computer implemented recording method [[for]] comprising:

inputting time-series information;

carrying out data compression on the time-series information including, generating management information and additional information, said management information for use in a decoding/reproduction process for decoding and reproducing said time-series information, said additional information being supplemental information regarding said time-series information; and

recording said time-series information once compressed, completing said data compression said management information, and said additional information onto a recording medium[[;]],

adding management information for a decoding/reproduction process to data included in each of decoding/reproduction units of said time-series information completing said data compression; and

recording said management information onto said recording medium,

whereby

said management information and said additional information being recorded in at least one of logical and physical positions next to each other in respective predetermined decoding/reproduction units

additional information for data included in each of predetermined interval decoding/reproduction units is recorded onto said recording medium by being associated with said management information for said decoding/reproduction process for data of a corresponding one of said decoding/reproduction units where said predetermined interval

~~decoding/reproduction units are some of said decoding/reproduction units separated from each other by predetermined time intervals.~~

Claim 2 (Original): The recording method according to claim 1 wherein, data of a read/write unit serving as a unit, in which data is written onto said recording medium and read out from said recording medium, includes a plurality of said decoding/reproduction units of said time-series information; and the sequence of pieces of data included in said decoding/reproduction units pertaining to said read/write unit in a time-series direction is changed.

Claim 3 (Currently Amended): The recording method according to claim 1 [[or 2]] wherein said management information added to data of said decoding/reproduction unit as management information for said decoding/reproduction process is time management information on a reproduction/output timing of said data.

Claim 4 (Original): The recording method according to claim 2 whereby additional information for data of said predetermined-interval decoding/reproduction unit is recorded by placing management information for a decoding/reproduction process for data of a corresponding one of said decoding/reproduction units at a predetermined location in data of said read/write unit.

Claim 5 (Original): The recording method according to claim 2 wherein: data of said read/write unit comprises a plurality of packets; and additional information for data of said predetermined-interval decoding/reproduction unit is recorded in data of said read/write unit as a packet including management information

for a decoding/reproduction process for data of a corresponding one of said decoding/reproduction units.

Claim 6 (Original): The recording method according to claim 2 wherein:  
data of said read/write unit comprises a plurality of packets;  
a specific packet is selected among said packets of said time-series information completing said data compression; and  
additional information for data of said predetermined-interval decoding/reproduction unit is recorded at a location determined as a location relative to said specific packet including management information for a decoding/reproduction process for a corresponding one of said decoding/reproduction units.

Claim 7 (Currently Amended): The recording method according to claim 1 [[or 2]] wherein said additional information includes at least information on a time at which data of said decoding/reproduction unit of said time-series information is acquired.

Claim 8 (Currently Amended): A recording method according to claim 1 [[or 2]] wherein said additional information includes information on a condition in which data of said decoding/reproduction unit of said time-series information is acquired.

Claim 9 (Currently Amended): The recording method according to claim 1 [[or 2]] wherein, [[;]]  
said time-series information is video information;  
data of said decoding/reproduction unit is information of a field unit or a frame unit;  
and

said data compression uses a correlation with data of said decoding/reproduction unit.

Claim 10 (Currently Amended): A computer implemented recording apparatus comprising:

data inputting means for inputting time-series information;

data compression means for carrying out data compression on the time-series information;

management-information generation means for generating management information for use in a decoding/reproduction process for decoding and reproducing said time-series information for a decoding/reproduction process and adding said management information to data included in each of decoding/reproduction units of said time-series information completing said data compression;

additional-information generation means for generating additional information that is supplemental information regarding said time-series information for data included in each of predetermined interval decoding/reproduction units, which are some of said decoding/reproduction units separated from each other by predetermined time intervals; and

recording control means for[[::]] recording said time-series information completing said data compression once compressed on a recording medium, and recording by adding said management information generated by said management-information generation means and said additional information by said additional-information generation means as management information for a decoding/reproduction process to data of said decoding/reproduction unit; and

recording said additional information generated by said additional-information generation means on said recording medium by associating said additional information with management information generated by said management-information generation means as

~~management information for said decoding/reproduction process for data of a corresponding one of said decoding/reproduction units next to each other on said recording medium in at least one of logical and physical positions in each predetermined decoding/reproduction units.~~

Claim 11 (Original): The recording apparatus according to claim 10 wherein, said recording control means generates data including a plurality of said decoding/reproduction units of said time-series information as data of a read/write unit serving as a unit, in which data is written onto said recording medium and read out from said recording medium; and

the sequence of pieces of data included in said decoding/reproduction units pertaining to said read/write unit in a time-series direction is changed.

Claim 12 (Currently Amended): The recording apparatus according to claim 10 [[or 11]] wherein said management information added to data of said decoding/reproduction unit as management information for said decoding/reproduction process is time management information on a reproduction/output timing of said data.

Claim 13 (Original): The recording apparatus according to claim 11 wherein said recording control means records additional information for data of said predetermined-interval decoding/reproduction unit by placing management information for a decoding/reproduction process for data of a corresponding one of said decoding/reproduction units at a predetermined location in data of said read/write unit.

Claim 14 (Original): The recording apparatus according to claim 11 wherein: data of said read/write unit comprises a plurality of packets; and

said recording control means records additional information for data of said predetermined-interval decoding/reproduction unit in data of said read/write unit as a packet including management information for a decoding/reproduction process for data of a corresponding one of said decoding/reproduction units.

    Claim 15 (Original): The recording apparatus according to claim 11 wherein:  
        data of said read/write unit comprises a plurality of packets;  
        a specific packet is selected among said packets of said time-series information completing said data compression; and

    said recording control means records additional information for data of said predetermined-interval decoding/reproduction unit at a location determined as a location relative to said specific packet including management information for a decoding/reproduction process for a corresponding one of said decoding/reproduction units.

    Claim 16 (Currently Amended): The recording apparatus according to claim 10 [[or 11]] wherein said additional information includes at least information on a time at which data of said decoding/reproduction unit of said time-series information is acquired.

    Claim 17 (Currently Amended): The recording apparatus according to claim 10 [[or 11]] wherein said additional information includes information on a condition in which data of said decoding/reproduction unit of said time-series information is acquired.

    Claim 18 (Currently Amended): The recording apparatus according to claim 10 [[or 11]] wherein;  
        said time-series information is video information;

data of said decoding/reproduction unit is information of a field unit or a frame unit;  
and

said data compression uses a correlation with data of said decoding/reproduction unit.

Claims 19-29 (Canceled).

Claim 30 (Currently Amended): [[The]] A reproduction apparatus for a recording medium according to claim 19, said reproduction apparatus comprising: having recorded thereon

compressed time-series information,

management information for a decoding/reproduction process to data included in each of decoding/reproduction units of said time-series information, and  
additional information that is supplemental information regarding said time series information, said management information and said additional information being recorded next to one another in at least one of logical and physical positions, said apparatus comprising:

read means for reading out said compressed time-series information and said additional information from said recording medium;

separation means for separating said compressed time-series information and said additional information, which have been read out by said read means;

decompression means for decompressing said compressed time-series information separated by said separation means;

first reproduction/output means for reproducing and outputting said decompressed time-series information by using management information for said decoding/reproduction process; and

second reproduction/output means for reproducing and outputting said additional information output by said separation means synchronously with an operation to reproduce and output data of said decoding/reproduction unit of said time-series information by using management information for said decoding/reproduction process.

Claim 31 (Currently Amended): [[The]] A reproduction apparatus for a recording medium having recorded thereon according to claim 19, said reproduction apparatus comprising:

compressed time-series information,  
management information for a decoding/reproduction process to data included in each  
of decoding/reproduction units of said time-series information, and  
additional information that is supplemental information regarding said time series  
information, said management information and said additional information being recorded  
next to one another in at least one of logical and physical positions, said apparatus  
comprising:

read means for reading out said compressed time-series information and said additional information from said recording medium;

separation means for separating said compressed time-series information and said additional information, which have been read out by said read means;

decompression means for decompressing said compressed time-series information separated by said separation means;

reproduction/output means for reproducing and outputting said decompressed time-series information by using management information for said decoding/reproduction process; and

reproduction/control means for reproducing said additional information output by said separation means in synchronization with an operation to reproduce and output data of said decoding/reproduction unit of said time-series information by using management information for said decoding/reproduction process, and controlling data of a corresponding one of said decoding/reproduction units on the basis of said generated additional information.

Claim 32 (Currently Amended): An image pickup apparatus comprising:  
an image pickup device;  
~~image pickup optical system for forming an object image on said image pickup device;~~

~~data compression means for carrying out a data compression process on image data video information output by said image pickup device;~~

~~time-management information generation means for generating time-management information [[for]] and additional information, said time-management information for use in a decoding/reproduction process for said image data, said additional information being supplemental information regarding said image data and adding said time management information to data included in each of decoding/reproduction units of said video information compressed by said data compression means;~~

~~additional information generation means for generating additional information for data included in each of predetermined interval decoding/reproduction units, which are some of said decoding/reproduction units separated from each other by predetermined time intervals; and~~

~~recording control means for[[::]] recording said image data once compressed video information completing said data compression on a recording medium, and recording by adding said management information generated by said management information generation~~

means and said additional information by said additional-information generation means as management information for a decoding/reproduction process to data of said decoding/reproduction unit; and

recording said additional information generated by said additional information generation means on said recording medium by associating said additional information with management information generated by said management information generation means as management information for said decoding/reproduction process for data of a corresponding one of said decoding/reproduction units next to each other on said recording medium in at least one of logical and physical positions in each predetermined decoding/reproduction units.

Claim 33 (Original): The image pickup apparatus according to claim 32 wherein, said recording control means generates data including a plurality of said decoding/reproduction units of said video information as data of a read/write unit serving as a unit, in which data is written onto said recording medium and read out from said recording medium; and

the sequence of pieces of data included in said decoding/reproduction units pertaining to said read/write unit in a time-series direction is changed.

Claim 34 (Original): The image pickup apparatus according to claim 32 wherein said recording control means records additional information for data of said predetermined-interval decoding/reproduction unit by placing management information for a decoding/reproduction process for data of a corresponding one of said decoding/reproduction units at a predetermined location in data of said read/write unit.

Claim 35 (Original): The image pickup apparatus according to claim 32 wherein:  
data of said read/write unit comprises a plurality of packets; and  
said recording control means records additional information for data of said  
predetermined-interval decoding/reproduction unit in data of said read/write unit as a packet  
including management information for a decoding/reproduction process for data of a  
corresponding one of said decoding/reproduction units.

Claim 36 (Original): The image pickup apparatus according to claim 32 wherein:  
data of said read/write unit comprises a plurality of packets;  
a specific packet is selected among said packets of said compressed time-series  
information; and  
said recording control means records additional information for data of said  
predetermined-interval decoding/reproduction unit at a location determined as a location  
relative to said specific packet including management information for a  
decoding/reproduction process for a corresponding one of said decoding/reproduction units.

Claim 37 (Original): The image pickup apparatus according to claim 32 wherein said  
additional information includes at least information on a time at which data of said  
decoding/reproduction unit of said video information is acquired.

Claim 38 (Original): The image pickup apparatus according to claim 32 wherein said  
additional information includes at least information on a condition in which data of said  
decoding/reproduction unit of said time-series information is acquired.

Claim 39 (Original): The image pickup apparatus according to claim 32 wherein;  
data of said decoding/reproduction unit is information of a field unit or a frame unit;  
and

said data compression process uses a correlation with data of said  
decoding/reproduction unit.

Claim 40 (New): The recording method according to claim 1, wherein a data size of  
each additional information is constant.

Claim 41 (New): The recording method according to claim 1, wherein said additional  
information follows said management-information in a logical position.

Claim 42 (New): The recording method according to claim 1, wherein said additional  
information includes time information of said time-series information.

Claim 43 (New): The recording method according to claim 1, wherein said additional  
information includes condition information of said time-series information.

Claim 44 (New): The recording apparatus according to claim 10, wherein a data size  
of each additional information is constant.

Claim 45 (New): The recording apparatus according to claim 10, wherein said  
additional information follows said management-information in a logical position.

Claim 46 (New): The recording apparatus according to claim 10, wherein said additional information includes time information of said time-series information.

Claim 47 (New): The recording apparatus according to claim 10, wherein said additional information includes condition information of said time-series information being generated.

Claim 48 (New): The image pickup apparatus according to claim 32, wherein a data size of each additional information is constant.

Claim 49 (New): The image pickup apparatus according to claim 32, wherein said additional information follows said management-information in a logical position.

Claim 50 (New): The image pickup apparatus according to claim 32, wherein said additional information includes time information of said image data being generated by said image pickup device.

Claim 51 (New): The image pickup apparatus according to claim 32, wherein said additional information includes condition information of said image data being generated by said image pickup device.